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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/629,707	07/31/2000	Zhigang Ma	Ma-12-7-5	5486

7590 06/23/2005
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EXAMINER

TRAN, THIEN D

ART UNIT PAPER NUMBER

2665

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/629,707	Applicant(s) MA ET AL.	
	Examiner Thien D. Tran	Art Unit 2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7 is rejected under 35 U.S.C. 102(b) as being participated by WO 97/23078.

Regarding claim 1, Wo 97/23078 discloses that in a multiprocessor digital signal processing system, col.8 lines 1-10, the combination comprising:

a plurality of processors, figure 3a;

a single analog subsystem 13 (coder/decoder) having a digital/analog conversion channel time division multiplexed among, and an analog/digital conversion channel concurrently coupled to, said plurality of processors, col.8 lines 5-10, figure 3a.

Regarding claims 2, 7, Wo 97/23078 discloses in a multiprocessor digital signal processing system, figure 3a, comprising:

means for individually selecting input digital signals and analog signals for digital/analog conversion and the analog/digital conversion, respectively, col.9 lines 1-10; and

means for assigning which of the multiple processors is coupled to the digital/analog conversion channel, figure 3b.

Regarding claims 3, 5, 6, Wo 97/23078 discloses a digital signal processing system comprising:

a single analog subsystem 13 (coder/decoder) having digital and analog signal inputs, and digital/analog and analog/digital conversion channels, figure 3a;

a first source of analog input signals 14 coupled to said analog signal input of said coder/decoder, figure 3a;

a second source of digital input signals 16, figure 3a;

a first plurality of signal DSP (processors) coupled between said source of digital input signals and said digital signal input of said coder/decoder, figure 3a; and

means for time division multiplexing said digital/analog conversion channel of said coder/decoder figure 3a;

whereby digital-to-analog converted signals are time division multiplexed at said analog output of said coder/decoder, and analog-to-digital converted signals are concurrently accessible at such digital output of said coder/decoder, col.9 lines 5-13.

Regarding claim 4, Wo 97/23078 discloses the digital signal processing system including a second plurality of signal processors coupled to said digital output of said coder/decoder for operating on said analog-to-digital converted signals, figure 3a.

Response to Arguments

3. Applicant's arguments filed 05/09/2005 have been fully considered but they are not persuasive.

Applicant argues that Huang does not teach a single digital/analog conversion channel time division multiplex among. However, Examiner respectfully disagrees with the argument because Huang teaches digital/analog conversion 15 (single if it is one of the two in the pair or the pair itself is a single converter) channel time division multiplex among, col.8 lines 5-10, figure 3a.

Applicant argues that Huang does not teach analog to digital converted signal concurrently accessible to all of the first plurality of processors. However, examiner respectfully disagrees with the argument because Huang teaches the analog to digital converted signal concurrently accessible to all of the CPUs 21 and DSPs 22 (plurality of processors), figure 3a.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Thien Tran whose telephone number is (571) 272-3156. The examiner can normally be reached on Monday-Friday from 8:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155. Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197.

Patent Examiner

Thien Tran

**DUCHO
PRIMARY EXAMINER**



6-17-05